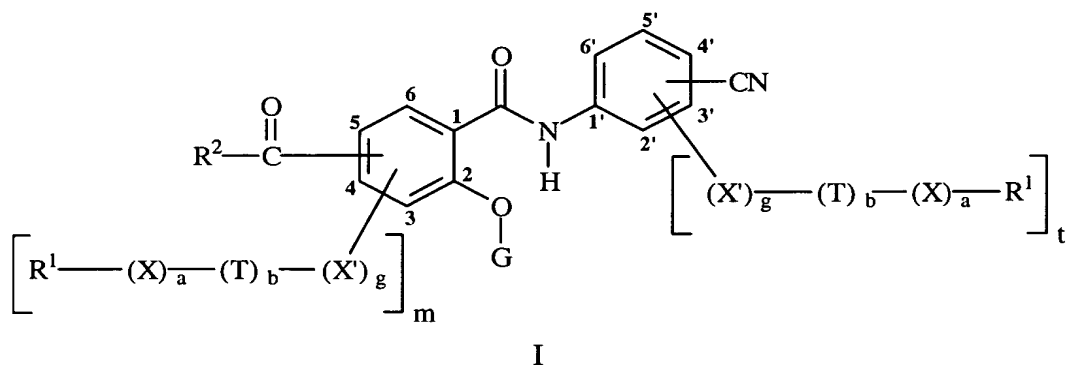


WHAT IS CLAIMED IS:

1. A composition comprising a compound of formula I:



Wherein:

- a.) m is an integer from 0 to 3;
- b.) t is an integer from 0 to 4;
- c.) a is 0 or 1;
- d.) b is 0 or 1;
- e.) g is 0 or 1;
- f.)  $R^1$  for said radical is independently selected from the group consisting of:
  - i) H;
  - ii)  $C_1$ - $C_{16}$  linear or branched, substituted or unsubstituted alkyl;
  - iii)  $C_2$ - $C_{16}$  linear or branched, substituted or unsubstituted alkenyl;
  - iv)  $C_2$ - $C_{16}$  linear or branched, substituted or unsubstituted alkynyl;
  - v)  $C_3$ - $C_{16}$  linear or branched, substituted or unsubstituted cycloalkyl;
  - vi)  $C_3$ - $C_{16}$  linear or branched, substituted or unsubstituted cycloalkenyl;
  - vii)  $C_7$ - $C_{16}$  linear or branched, substituted or unsubstituted alkaryl;
  - viii)  $C_7$ - $C_{16}$  linear or branched, substituted or unsubstituted aralkyl;
  - ix)  $C_6$ - $C_{16}$  substituted or unsubstituted aryl;
  - x)  $C_5$ - $C_{20}$  heteroaryl units comprising one or more heteroatoms selected from the group consisting of nitrogen, oxygen, sulfur, and mixtures thereof; and
  - xi) a suitable charge balancing counterion  $(M^{n+})_{1/n}$ , provided a and b are both 1 and X is selected from O and S;

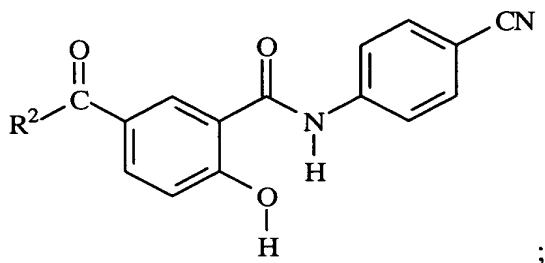
- xii) when a, b and g are all 0 for any single radical,  $R^1-(X)_a-(T)_b-(X')_g$ ,  $R^1$  for said radical may be further selected from the group consisting of CN, an amine oxide moiety,  $NO_2$  and mixtures thereof;
  - g.) X and X', when present, are selected from O, S, and  $NR^2$ ;
  - h.) each  $R^2$  is independently selected from the group consisting of:
    - i) H;
    - ii)  $C_1-C_{16}$  linear or branched, substituted or unsubstituted alkyl;
    - iii)  $C_2-C_{16}$  linear or branched, substituted or unsubstituted alkenyl;
    - iv)  $C_2-C_{16}$  linear or branched, substituted or unsubstituted alkynyl;
    - v)  $C_3-C_{16}$  linear or branched, substituted or unsubstituted cycloalkyl;
    - vi)  $C_3-C_{16}$  linear or branched, substituted or unsubstituted cycloalkenyl;
    - vii)  $C_7-C_{16}$  linear or branched, substituted or unsubstituted alkaryl;
    - viii)  $C_7-C_{16}$  linear or branched, substituted or unsubstituted aralkyl;
    - ix)  $C_6-C_{16}$  substituted or unsubstituted aryl; and
    - x)  $C_5-C_{20}$  heteroaryl units comprising one or more heteroatoms selected from the group consisting of nitrogen, oxygen, sulfur, and mixtures thereof;
  - i.) T, when present, is selected from  $C=O$ ,  $C=S$ ,  $S=O$ , and  $SO_2$ ; when T is  $S=O$  or  $SO_2$ , X and X' associated with said T may not be S;
  - j.) G is:
    - i) H;
    - ii) a suitable charge balancing counterion  $(M^{n+})_{1/n}$ , or
    - iii) a cleaveable group selected from the group consisting of  $Si((O)_pR^3)_3$ , where p is independently 0 or 1;  $C(O)_q((O)_pR^3)_r$ , wherein p is independently 0 or 1 and when q is 1, r is 1, and when q is 0, r is 3;  $R^3$  is independently selected from the group consisting of  $C_1-C_{16}$  linear or branched, substituted or unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, alkaryl, aralkyl, and aryl, and mixtures thereof
- provided that when, for any radical, b is 0, a, g, or a and g are 0 for said radical.

2. The composition of Claim 1 further comprising at least one additional component selected from the group consisting of:
  - a) a surfactant wherein either:
    - (i) the ratio of the weight of the surfactant divided by the weight of the substituted salicylanilide compound of formula I is greater than or equal to 1.0 and further provided that the surfactant is 1 wt% or greater of the composition; or
    - (ii) the composition comprises at least 1 wt% of a cationic surfactant, wherein the ratio of the weight of the surfactant divided by the weight of said compound I is greater than or equal to 1.0; and wherein a 10 wt% aqueous solution of this composition has a pH less than or equal to 7.0;
  - b) from 0.5% to 90% by weight of a solvent said solvent having Hildebrand solubility parameter  $d_S$  ( $\text{cal/cm}^3$ )<sup>1/2</sup> meeting the following criterion:  $5 < d_S < 20$ , wherein a 10 wt% aqueous solution of this composition has a  $\text{pH} \geq (\text{pK}_a - 1)$  where  $\text{pK}_a$  is the calculated  $\text{pK}_a$  of the O-G phenol of formula I, or when G is not H, the  $\text{pK}_a$  of the O-G phenol of formula I that results from replacing G with H;
  - c) a perfume having a C log P greater than or equal to 2.0;
  - d) 0.001 to 1.0% by weight of an enzyme; and
  - e) mixtures thereof.
3. The composition of Claim 2 wherein the enzyme is selected from the group consisting of: proteases, amylases, cellulases, mannanases, xyloglucanases, pectinases, lipases, laccases, peroxidases and mixtures thereof.
4. The composition of Claim 2 wherein the composition comprises at least two of said additional components.
5. A method of reducing bacteria or inhibiting bacterial growth comprising contacting a substrate comprising a textile with the composition of Claim 1.
6. A substrate treated according to the method of Claim 5.
7. A liquid detergent comprising the composition of Claim 1.

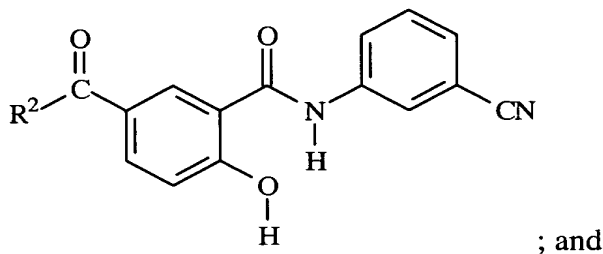
8. The composition of Claim 2 wherein m is 0 or 1; t is 0 or 1; a, b and g are all 0; G is H and R<sup>1</sup>, when present, is not H.

9. The composition of Claim 8 wherein said compound is selected from the group consisting of:

A)



B)



C) mixtures thereof

wherein R<sup>2</sup> is selected from the group consisting of:

- i) H;
- ii) C<sub>1</sub>-C<sub>16</sub> linear or branched, substituted or unsubstituted alkyl;
- iii) C<sub>2</sub>-C<sub>16</sub> linear or branched, substituted or unsubstituted alkenyl;
- iv) C<sub>2</sub>-C<sub>16</sub> linear or branched, substituted or unsubstituted alkynyl;
- v) C<sub>3</sub>-C<sub>16</sub> linear or branched, substituted or unsubstituted cycloalkyl;
- vi) C<sub>3</sub>-C<sub>16</sub> linear or branched, substituted or unsubstituted cycloalkenyl;
- vii) C<sub>7</sub>-C<sub>16</sub> linear or branched, substituted or unsubstituted alkaryl;
- viii) C<sub>7</sub>-C<sub>16</sub> linear or branched, substituted or unsubstituted aralkyl;
- ix) C<sub>6</sub>-C<sub>16</sub> substituted or unsubstituted aryl; and
- x) C<sub>5</sub>-C<sub>20</sub> heteroaryl units comprising one or more heteroatoms selected from the group consisting of nitrogen, oxygen, sulfur, and mixtures thereof.

10. The composition of Claim 9 wherein  $R^2$  is selected from the group consisting of:  
 a.)  $C_1$ - $C_{16}$  linear or branched, substituted or unsubstituted alkyl; and  
 b.)  $C_6$ - $C_{16}$  substituted or unsubstituted aryl.

11. The composition of Claim 2, wherein m is 0 or 1; t is 0 or 1; and G is H

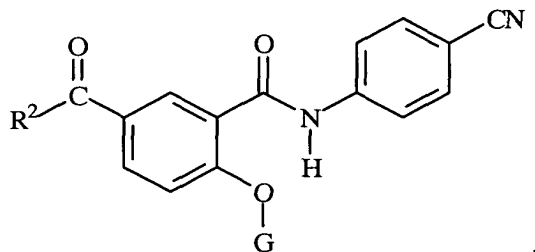
12. The composition of Claim 11, wherein t is 0.

13. The composition of Claim 12, wherein all a, b and g are 0.

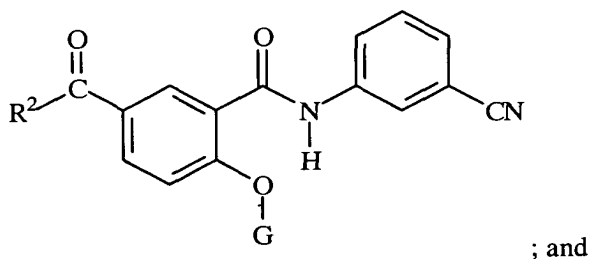
14. The composition of Claim 13, wherein m is 0.

15. A compound selected from:

A)



B)



C) mixtures thereof;

wherein  $R^2$  is selected from the group consisting of:

- i) H;
- ii)  $C_1$ - $C_{16}$  linear or branched, substituted or unsubstituted alkyl;
- iii)  $C_2$ - $C_{16}$  linear or branched, substituted or unsubstituted alkenyl;
- iv)  $C_2$ - $C_{16}$  linear or branched, substituted or unsubstituted alkynyl;
- v)  $C_3$ - $C_{16}$  linear or branched, substituted or unsubstituted cycloalkyl;
- vi)  $C_3$ - $C_{16}$  linear or branched, substituted or unsubstituted cycloalkenyl;

- vii) C<sub>7</sub>-C<sub>16</sub> linear or branched, substituted or unsubstituted alkaryl;
- viii) C<sub>7</sub>-C<sub>16</sub> linear or branched, substituted or unsubstituted aralkyl;
- ix) C<sub>6</sub>-C<sub>16</sub> substituted or unsubstituted aryl; and
- x) C<sub>5</sub>-C<sub>20</sub> heteroaryl units comprising one or more heteroatoms selected

from the group consisting of nitrogen, oxygen, sulfur, and mixtures thereof; and G is H, a suitable charge balancing counterion (M<sup>n+</sup>)<sub>1/n</sub>, or a cleaveable group selected from the group consisting of Si((O)<sub>p</sub>R<sup>3</sup>)<sub>3</sub>, where p is independently 0 or 1; C(O)<sub>q</sub>((O)<sub>p</sub>R<sup>3</sup>)<sub>r</sub>, wherein p is independently 0 or 1 and when q is 1, r is 1, and when q is 0, r is 3; R<sup>3</sup> is independently selected from the group consisting of C<sub>1</sub>-C<sub>16</sub> linear or branched, substituted or unsubstituted alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, alkaryl, aralkyl, and aryl, and mixtures thereof.

16. The compound of Claim 15, wherein R<sup>2</sup> is selected from the group consisting of:
  - a.) C<sub>1</sub>-C<sub>16</sub> linear or branched, substituted or unsubstituted alkyl; and
  - b.) C<sub>6</sub>-C<sub>16</sub> substituted or unsubstituted aryl.
17. The compound of Claim 16, wherein R<sup>2</sup> is selected from the group consisting of:
  - a.) C<sub>5</sub>-C<sub>11</sub> linear or branched, substituted or unsubstituted alkyl; and
  - b.) C<sub>6</sub>-C<sub>14</sub> substituted or unsubstituted aryl.
18. A method of synthesizing a 5-acyl substituted salicylamide comprising the step of moving the attachment point of an acyl group, said acyl group being attached to the phenolic oxygen atom at position 2 of a salicylamide, from said phenolic oxygen atom to the carbon atom at the 5 position of said salicylamide.
19. The method of Claim 18 wherein moving said acyl group comprises the step of contacting the salicylamide having the acyl group attached to the phenolic oxygen atom at position 2 of said salicylamide with a Lewis acid.
20. The method of Claim 19 wherein said moving step is performed in the presence of a solvent.